

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : **11-265799**

(43)Date of publication of application : **28.09.1999**

(51)Int.Cl.

**H05B 41/24**

(21)Application number : **10-324478**

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(22)Date of filing : **28.10.1998**

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(30)Priority

Priority number : **10 20454** Priority date : **16.01.1998** Priority country : **JP**

## (54) DISCHARGE LAMP LIGHTING DEVICE

(57)Abstract:

**PROBLEM TO BE SOLVED:** To extend the life of a device by providing a first period when an AC frequency is changed at an average frequency change speed and a second period when the AC frequency is changed at an average frequency change speed higher than it, and preventing a large preheating current from being abruptly fed to a first electrode and a second electrode.

**SOLUTION:** A first preheat timer 27 generates a signal S2 indicating a preheating period T2 in response to the output signal S1 of a soft start timer 26. A second preheat timer 28 generates a signal S3 indicating a second preheating period T3 in response to the output signal S2 of the first preheat timer 27. The periods T2 and T3 are added to form a first period when an AC frequency is changed at the average frequency change speed. A start timer 29 generates a second period T4 when the AC frequency is changed at an average frequency change speed faster than the first period in response to the output signal S3 of the preheat timer 28. The inverter output frequency is lowered in stages during the preheating period, and a large preheating current can be prevented from being abruptly fed to a first electrode and a second electrode during the preheating period.

